Energy

HYDRO

ACER - Agency for the Cooperation of Energy Regulators
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Network Code on Load-Frequency Control and Reserves

We refer to the invitation from Acer to express views on the Network Code on Load-Frequency Control and Reserves posted online on Acers webpages.

Hydro is a global supplier of aluminium with activities throughout the value chain. Hydro has primary metal production in Qatar, Brazil, Germany, Norway, Slovakia, Canada and Australia, and in Norway Hydro also operates hydroelectric facilities. For Hydro it is important to secure an efficient operation of the power system. A vital component to accomplish this is proper utilization of demand flexibility, and this must also include the possibility of contributions from industrial loads. Hydro's views on the Network Code follow below.

For Hydro it is important to emphasize the need to ensure that large industrial loads can contribute as reserve providers in the power market with respect to flexibility and stabilization services to the power system. With the ability of fast down ramping of large loads this should be beneficial for the power system. It is also important to facilitate market based solutions, and that these solutions are designed to incorporate both generators and loads desiring to participate in the market. The remuneration schemes should be based on the benefit provided to the power system.

The network code states in article 45(6) that a FCR providing unit or group with an energy reservoir that limits the FCR providing capability, shall be able to fully activate its FCR continuously for a time period of not less than 30 minutes. A recovery of the energy reservoir should be at latest within 2 hours. An aluminum smelter has technical limitations with regards to tolerable duration of an outage and tolerable time between outages. It is important to take these limitations into consideration and ensure that this article will not be a basis for excluding certain industrial loads from participating as reserve providers.

Article 45(5) limits the share that a single FCR providing unit can contribute. For Central Europe the limit is 5 % of the total FCR capacity and for North Europe it is taken into account in the dimensioning process. The reasoning behind this provision is to limit the consequences of a loss of a power generating module, demand unit or a connection point. Hydro questions whether the limit should be the same for demand units and power generating modules. The likeliness of failure of a demand unit's ability to ramp down versus a power generating module to ramp up should be considered in this case.

Yours faithfully,

for Norsk Hydro ASA

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